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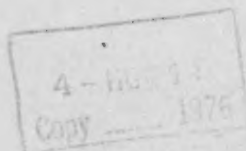
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ABSTRACT

One of 15 core modules in a 22-module series designed to train vocational education curriculum specialists (VECS), this guide is intended for use by both instructor and student in a variety of education environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings. The guide has five major sections. Part I, Organization and Administration, contains an overview and rationale, educational goals and performance objectives, recommended learning materials, and suggested reference materials. Part II, Content and Study Activities, contains the content outline arranged by goals. Study activities for each goal and its corresponding objectives follow each section of the content outline. Content focus is on the concept of accountability in education, fiscal planning and management systems, the basic characteristics of State plans for vocational education, components of proposals requesting funding for vocational education programs or projects. Part III, Group and Classroom Activities, suggests classroom or group activities and discussions keyed to specific content in the outline and to specific materials in the list of references. Part IV, Student Self-Check, contains questions directly related to the goals and objectives of the module, which may be used as a pretest or posttest. Part V, Appendix, contains suggested responses to the study activities from part II and responses to the student self-checks. (HD)



Module 10:

● Fiscal Management of Vocational Education Programs

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

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STUDY GUIDE
(TEACHING/LEARNING MODULE)

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-Study Guide-

Module 10

**FISCAL MANAGEMENT
OF VOCATIONAL
EDUCATION PROGRAMS**

This document is one of a series of teaching/learning modules designed to train Vocational Education Curriculum Specialists. The titles of all individually available documents in this series appear below:

INTRODUCTORY MODULES

1. The Scope of Vocational Education
2. Roles of Vocational Educators in Curriculum Management
3. Current Trends in Vocational Education
4. Organization of Vocational Education
5. Legislative Mandates for Vocational Education
6. The Preparation of Vocational Educators

CORE MODULES

1. Important Differences Among Learners
2. Learning Processes and Outcomes
3. Applying Knowledge of Learning Processes and Outcomes to Instruction
4. Assessing Manpower Needs and Supply in Vocational Education
5. Laying the Groundwork for Vocational Education Curriculum Design
6. Selecting Instructional Strategies for Vocational Education
7. Derivation and Specification of Instructional Objectives
8. Development of Instructional Materials
9. Testing Instructional Objectives
10. Fiscal Management of Vocational Education Programs
11. Introducing and Maintaining Innovation
12. Managing Vocational Education Programs
13. Basic Concepts in Educational Evaluation
14. General Methods and Techniques of Educational Evaluation
15. Procedures for Conducting Evaluations of Vocational Education

SEMINARS AND FIELD EXPERIENCE MODULE

(Seminars in Authority Roles and the Curriculum Specialist in Vocational Education, and Leadership Styles and Functions of the Curriculum Specialist in Vocational Education; field work in Project Design and Administration, Operation of School Programs, Evaluation of School Programs, Educational Research and Development, and State, Regional, and Federal Program Supervision)

INSTALLATION GUIDE

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PREFACE

Who is a vocational education curriculum specialist? The answer to this question is not as simple as it might appear. A vocational education curriculum specialist is likely to work in many different capacities, including, but not limited to: instructor, department chairperson, dean of vocational-technical education, vocational supervisor, principal, state or local director of vocational education, and curriculum coordinator.

The specialist is, perhaps, more identifiable by his/her responsibilities, which include, but are not limited to:

- planning, organizing, actualizing, and controlling the work of an educational team performed to determine and achieve objectives.
- planning, organizing, and evaluating content and learning processes into sequential activities that facilitate the achievement of objectives.
- diagnosing present and projected training needs of business, industry, educational institutions, and the learner.
- knowing, comparing, and analyzing different theories of curriculum development, management, and evaluation and adapting them for use in vocational-technical education.

This teaching/learning module is part of a set of materials representing a comprehensive curriculum development project dealing with the training of vocational education curriculum specialists. The purpose of this two-year project was 1) to design, develop, and evaluate an advanced-level training program, with necessary instructional materials based on identified vocational education curriculum specialist competencies, and 2) to create an installation guide to assist instructors and administrators in the implementation process.

The curriculum presented here is, above all else, designed for flexible installation. These materials are not meant to be used only in the manner of an ordinary textbook. The materials can be used effectively by both instructor and student in a variety of educational environments, including independent study, team teaching, seminars, and workshops, as well as in more conventional classroom settings.

Dr. James A. Dunn
Principal Investigator and
presently Director,
Developmental Systems Group
American Institutes for Research

ACKNOWLEDGEMENTS

The Vocational Education Curriculum Specialist Project was a comprehensive development and evaluation effort involving the contribution of a large number of people: project staff, curriculum consultants, a national advisory panel, and a number of cooperating colleges and universities. This wide variety of valuable inputs makes it difficult to accurately credit ideas, techniques, suggestions, and contributions to their originators.

The members of the National Advisory Panel, listed below, were most helpful in their advice, suggestions, and criticisms.

Myron Blee	<i>Florida State Department of Education</i>
James L. Blue	<i>RCU Director, Olympia, Washington</i>
Ralph C. Bohn	<i>San Jose State University</i>
Ken Edwards	<i>International Brotherhood of Electrical Workers</i>
Mary Ellis	<i>President, American Vocational Association</i>
George McCabe	<i>Program Director, Consortium of California State University and Colleges</i>
Curtis Henson	<i>Atlanta Independent School District, Georgia</i>
Ben Hirst	<i>Director, Consortium of the States, Atlanta, Georgia</i>
Joseph Julianelle	<i>U. S. Department of Labor</i>
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Bette LaChapelle	<i>Wayne State University</i>
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Frank Pratzner	<i>CVE, Ohio State University</i>
Rita Richey	<i>Wayne State University</i>
Bryl R. Shoemaker	<i>Ohio State Department of Education</i>
William Stevenson	<i>Oklahoma State Department of Education</i>

The project would not have been possible without the cooperation and commitment of the field test institutions listed below.

California State University, Long Beach
California Polytechnic State University, San Luis Obispo
Consortium of California State University and Colleges

- California State University, Sacramento
- California State University, San Diego
- California State University, San Francisco
- California State University, San Jose
- California State University, Los Angeles

Iowa State University
University of California Los Angeles
University of Northern Colorado

Overall responsibility for the direction and quality of the project rested with James A. Dunn, Principal Investigator. Project management, supervision, and coordination were under the direction of John E. Bowers, Project Director.

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Part I:

Organization and Administration

PART I ORGANIZATION AND ADMINISTRATION

Guidelines

This study guide has five major sections. Each section contains useful information, suggestions, and/or activities that assist in the achievement of the competencies of a Vocational Education Curriculum Specialist. Each major section is briefly described below.

PART I: ORGANIZATION AND ADMINISTRATION

PART I contains an Overview and Rationale, Educational Goals and Performance Objectives, Recommended Learning Materials, and Suggested Reference Materials. This section will help the user answer the following questions:

- How is the module organized?
- What is the educational purpose of the module?
- What specifically should the user learn from this module?
- What are the specific competencies emphasized in this module?
- What learning materials are necessary?
- What related reference materials would be helpful?

PART II: CONTENT AND STUDY ACTIVITIES

Part II contains the content outline arranged by goals. The outline is a synthesis of information from many sources related to the major topics (goals and objectives) of the module. Study activities for each goal and its corresponding objectives follow each section of the content outline, allowing students to complete the exercises related to Goal 1 before going on to Goal 2.

PART III: GROUP AND CLASSROOM ACTIVITIES

The "Activities-Resources" column in the content outline contains references to classroom or group activities and discussion questions related to specific content in the outline. These activities and discussion questions

are located in PART III and are for optional use of either the instructor or the student. Both the classroom activities and discussion questions are accompanied by suggested responses for use as helpful examples only--they do not represent conclusive answers to the problems and issues addressed. Also contained in the "Activities-Resources" column are the reference numbers of the resources used to develop the content outline. These reference numbers correspond to the numbers of the Suggested Reference Materials in PART I.

PART IV: STUDENT SELF-CHECK

PART IV contains questions directly related to the goals and objectives of the module. The self-check may be used as a pre-test or as a post-test, or as a periodic self-check for students in determining their own progress throughout the module.

PART V: APPENDICES

Appendix A contains responses to the Study Activities from PART II, and Appendix B contains responses to the Student Self-Check. The responses provide immediate feedback to the user and allow the module to be used more effectively for individualized study. They have been included in the last part of the module as appendices to facilitate their removal should the user wish to use them at a later time rather than concurrently with the rest of the module.

Approximately 30 hours of out-of-class study will be necessary to complete this module.

Overview and Rationale

Module 10 is designed to give the student insight into the fiscal management of vocational education programs. Fiscal management is a broad area; any discussion of it must consider such topics as accountability, state plans, management systems, and fiscal funding through proposals.

The module is divided into four major goals. The first goal discusses the concept of accountability and how it relates to fiscal planning and funding.

The second goal discusses a variety of fiscal management systems with special emphasis on Program Planning Budgeting Systems (PPBS). The student will have an opportunity to study the fiscal management system of his choice in the wrapup activity for the module.

The third goal requires the student to study his own state's plan for vocational education to determine how federal and state funds are maintained and allocated.

And, finally, the fourth goal requires the student to study the process of writing a proposal for the funding of a program or project. When the student has completed all the activities and readings required for achieving the four goals, a wrapup exercise gives him an opportunity to study a management system or to develop a funding proposal with instructor assistance.

Goals and Objectives

Upon completion of this module, the student will be able to achieve the following goals and objectives:

GOAL 10.1: DESCRIBE THE CONCEPT OF ACCOUNTABILITY IN EDUCATION.

Objective 10.11 Define the concept of accountability in education.

Objective 10.12 Describe the role of the vocational curriculum specialist in the accountability system.

Objective 10.13 List the four necessary components of an accountability system.

GOAL 10.2: DISCUSS FISCAL PLANNING AND MANAGEMENT SYSTEMS.

Objective 10.21 Describe the basic characteristics of four fiscal management plans.

GOAL 10.3: DESCRIBE THE BASIC CHARACTERISTICS OF THE STATE PLAN FOR VOCATIONAL EDUCATION FOR THE STATE IN WHICH YOU RESIDE.

Objective 10.31 Describe how federal funds are maintained and audited by the state.

Objective 10.32 Describe the two main state criteria for allocating federal funds to state and local vocational education programs.

Objective 10.33 State the percentage of federal funds made available for disadvantaged, handicapped, and postsecondary persons.

Objective 10.34 List the instructional areas of vocational education recognized by your state.

GOAL 10.4: PREPARE THE COMPONENTS OF A PROPOSAL REQUESTING FUNDING OF A PROGRAM OR PROJECT IN VOCATIONAL EDUCATION.

Objective 10.41 Prepare a statement of need.

Objective 10.42 Prepare objectives that describe the outcomes of the program.

Objective 10.43 Prepare a description of the topics to be covered in the program.

Objective 10.44 Describe how to prepare a plan for evaluating the success of the program.

Objective 10.45 Describe how to prepare a plan for the diffusion of the program.

Objective 10.46 Prepare a description of the required personnel and facilities.

Objective 10.47 Describe the three steps for preparing a description of the required budget.

Recommended Materials

Hall, Mary. Developing Skills in Proposal Writing. Corvallis, Oregon: Continuing Education Publications, 1971.

Planning and Management Systems For State Programs of Vocational and Technical Education. Information Series No. 48, VT 013 638. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, November 1971.

State Plan for Vocational Education for the state in which you reside.

Note: State Plans for Vocational Education can be obtained by contacting the Office of the State Director of Vocational Education.

Suggested References

1. California State Plan for Vocational Education. Sacramento: State of California, 1973.
2. Elias, John E., and Reece, Barry L. "Accountability Means Product: Are We on the Right Track?" American Vocational Journal, Vol. 48, No. 3 (March 1973).
3. Management Systems for Vocational and Technical Education. Information Series No. 51, VT 013 928. Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, 1971.
4. Everts, H.F. Introduction to PERT. Boston: Allyn and Bacon, Inc., 1964.
5. Good, Carter V. Dictionary of Education. New York: McGraw-Hill Book Company, 1973.
6. Hall, Mary. Developing Skills in Proposal Writing. Corvallis, Oregon: Continuing Education Publications, 1971.
7. Kaufman, Jacob J. "Accountability: A Rational Approach to Education." American Vocational Journal (March 1973).
8. Knezevich, Stephen J. Administration of Public Education. New York: Harper and Row, 1969.

9. Marks, Morton E.; Taylor, H. Lyndon; Schoen, Gary W.; and Susbauer, Jeffrey C. CPM/PERT: A Diagrammatic Scheduling Procedure. Austin, Texas: The University of Texas, 1966.
10. Quade, E. S. Analysis for Military Decisions. Santa Monica, California: The Rand Corporation, 1964.

Part II:

Content and Study Activities

PART II CONTENT AND STUDY ACTIVITIES

Goal 10.1

Content Outline	Activities-Resources
Goal 10.1: Describe the Concept of Accountability in Education. A. <u>Definition of Accountability</u> There are many interpretations of the concept of accountability as it relates to education. For the purpose of this discussion, accountability will mean a systematic procedure for: 1. determining student learning needs; 2. determining the effectiveness of the education process in meeting these needs (How well do we meet these needs?); 3. determining the efficiency of the educational process in meeting these needs (Can we spend less money or time?) (5). (5) <u>Dictionary of Education.</u> Fiscal management is as important in vocational education programs as it is in business and industry. Cost effectiveness should be part of every planning and management decision. B. <u>Components of an Accountability System</u> In order to have an accountability system, several components must be present. These components include:	

Content Outline (continued)

1. learning goals and behavioral objectives;
2. criterion-referenced tests;
3. monitoring system to gather data on the success and failures of students; and
4. accurate cost data.
 - a. Learning goals and objectives: The learning goals and objectives describe to everyone--school administrators, students, parents, and/or course teachers--what will be achieved by the end of the specified time period. They serve as the basis of the accountability system by providing the framework for the teacher selecting instructional content. They also allow the community and the public in general to take responsibility for determining course content.
 - b. Criterion-referenced tests: These tests serve as the measurement tool in an accountability system. Without test items, no one would know if the goals and objectives had been achieved.

In vocational education, testing should be relatively easy. If a specific program, such as clerk-typist training, is broken down into tasks and the skills needed to accomplish those tasks (such minimum employment standards have been established by business and industry), and if the teaching is organized so that the skills are learned in a logical sequence, testing becomes merely a matter of determining how far the student has progressed.* 20

* See Discussion Questions A and B in Part III.

Content Outline (continued)

- c. Monitoring system to gather data on the success and failure of students: A monitoring system should be built into an accountability system so that the teacher and/or administrators can check, at any point, the degree to which students have reached the goals and objectives. This assessment is a kind of balance sheet; it shows how much has been done, what remains to be done, and how effectively each component in the program is working.
- d. Accurate cost data: A complete, updated, and accurate record of costs is needed to allow administrators to analyze, compare, and defend the value and cost of all programs. Ideally, this cost data will be kept up to date so that the community as well as the administrator can, at any time, tell exactly how much money is going where.

C. How to Implement an Accountability System

1. The first step in setting up an accountability system is to identify program goals. For example, the general goal of a system of vocational education may be to provide entry-level training in a specific occupation through the use of individualized instructional methods. This is a broad goal--too broad for the classroom. As such, it would apply to the school as a whole.
2. The second step is to develop more explicit goals at the classroom and course levels. For

Content Outline (continued)

instance, one course goal might be to provide training for clerk-typists. If placement is part of the goal, there must be a reasonable expectation of job openings. Job opportunities can be checked by conducting an employment survey of the area. This is where community cooperation comes in. Area or regional business associations should be helpful in estimating and projecting employment needs. Information is also available through cooperating agencies such as state employment departments.

Since job placement is affected by contingencies beyond the school's control, it is not usually included in the accountability system. Traditionally, however, it has been included in the accountability system for vocational education. Another evaluation criterion for a successful program should be whether or not the appropriate objectives have been selected. After all, is the taxpayers' money well spent if the school trains students to perform jobs that do not exist?*

3. The third step is to determine the exact skills and knowledge the course should teach. This means analyzing the job as a series of tasks to be performed and then determining the skills needed to perform those tasks (2). Again, the business/industry community should be involved in the decision-making process. Only through close cooperation with the business/industry community can the teacher and curriculum spe-

* See Discussion Question C in Part III.

- (2) "Accountability Means Product: Are We on the Right Track?"

Content Outline (continued)

cialist decide which skills and knowledge are important and should be taught. If wrong or outmoded skills are taught, students will not be prepared to enter the job, and they, as well as the community will have been let down.

Teachers and curriculum specialists who develop their objectives independently should verify the relevancy of the objectives to the job tasks with someone who currently performs or supervises the job. It is important to remember that this is one of the major roles of the vocational curriculum specialist--to act as a bridge between the business/industry community and the classroom teacher.

4. The fourth step is to develop the criterion-referenced test that will be used to measure the degree to which students have achieved the objectives. At least one test item for each objective is preferable but not always required.
5. The fifth step is to develop the curriculum that will help the students achieve the objectives and pass the tests.
6. The sixth step is to develop a monitoring system to keep track of student progress. This system should be as uncomplicated as possible. It can, for example, be simply a list of test items that students check off as each is passed. If the course has been taught previously, a time chart comparing the progress of each current student with the average progress of previous students might be useful.

Content Outline (continued)

7. The seventh step in implementing an accountability system is to maintain a record of expenses. This record should be up to date and accurate so that interested parties can, at any time, determine the cost of a given course. Because of the compartmentalized nature of school budgets, it is virtually impossible to assign costs on an individual class basis. However, the more cost details that can be provided, the easier it is to estimate program costs.*

* See Discussion Question D in Part III.

D. Evaluating the Program--the Final Step in an Accountability System

1. Evaluating the results of the teaching effort is, of course, essential to fulfilling the concept of accountability. There are two phases in such evaluation: the first is the immediate evaluation, which is concerned with the following questions: (7)
 - a. Have students achieved the objectives?
 - b. Has the teaching process been as efficient as possible?
 - c. Did we teach the correct objectives?
(Can students use the skills and knowledge we have taught in a real-world situation?)
 - d. Have we increased student interest in the subject taught?

These are the most important questions to ask when evaluating teaching efforts. They are the points over which teachers and schools have direct influence and responsibility.

(7) "Accountability: A Rational Approach to Education."

Content Outline (continued)

-
2. The second phase in evaluating teaching efforts follows the first and is usually thought of as a follow-up or exit evaluation. The important questions include:
- a. Is the course responding to manpower needs?
 - b. Can graduates of the program be placed in jobs commensurate with their training and their expectations?
 - c. Do graduates of the program feel the course was relevant?
 - d. What are the graduates' salaries when they begin work and after six months or a year on the job in comparison with general education graduates?
 - e. Were students overtrained? If yes, what was the cost of that overtraining?*

* See Discussion Questions E and F and Classroom Activity 1 in Part III.

E. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

Definition of Accountability

There are many interpretations of the concept of accountability in education. For the purpose of this module, accountability means a systematic procedure for determining:

- a. student learning needs,
- b. the effectiveness of the educational process to meet these needs,
and
- c. the efficiency of the educational process to meet these needs.

The Dictionary of Education defines accountability under three entries.

ACCOUNTABILITY: (Admin.) liability for results which have been obtained through the responsible exercise of delegated authority.

ACCOUNTABILITY, EDUCATIONAL: the theory that teachers and school systems may be held responsible for actual improvement in pupil achievement and that such improvement is measurable through tests of teacher effectiveness constructed by outside agencies.

ACCOUNTABILITY, PUPIL: the responsibility for carrying out an obligation or trust to each pupil appropriately assigned to a specific school or a school district.

- 1a. Define the concept of accountability in education.
- b. Describe the role of the following in the accountability process. Try to determine the role of the vocational curriculum specialist in your particular situation.
 - a. the teacher
 - b. the administration
 - c. the student
 - d. the vocational curriculum specialist

2a. What are the four necessary components of an accountability system?

b. Why are behavioral objectives and criterion-referenced tests essential for an accountability system? Explain.

(See Appendix A for possible answers.)

Goal 10.2

Content Outline	Activities-Resources
Goal 10.2: Discuss Fiscal Planning and Management Systems. A. <u>Planning and Management Systems</u> For years public school administrators have supplied cost information such as the cost of transportation per pupil, per bus, and/or route. They have also been quick to point out the costs of maintaining the physical facilities of a school, of feeding a child, and of conducting athletic programs. However, few school administrators can state the costs of raising a child's reading or mathematical skills from one level to a higher one; neither can they tell the taxpaying public how the achievement of a marketable skill relates to its costs. Given this background, school administrators have become more cognizant of the need for management concepts that effectively communicate to the public the cost and benefits of the output of educational institutions. They need management techniques that will improve decision making, planning, and forecasting (3). This section briefly describes the following management systems:	(3) <u>Management Systems for Vocational and Technical Education</u>, pp. 2-3.

Content Outline (continued)

1. Systems analysis;
2. Management by objectives;
3. PERT; and
4. PPBS.

B. Systems Analysis

1. E. S. Quade provides the following definition of systems analysis:

"Systems analysis might be defined as an inquiry to aid a decision maker choose a course of action by systematically investigating his proper objectives, comparing quantitatively where possible, the costs, effectiveness, and risks associated with alternative policies or strategies for achieving them, and formulating additional alternatives if those examined are found wanting. Systems analysis represents an approach to, or way of looking at, complex problems of choice under uncertainty, such as those associated with national security. In such problems, objectives are usually multiple, and possibly conflicting, and analysis designed to assist the decision maker must necessarily involve a large element of judgment" (10).

2. The salient features of systems analysis are:
 - a. clear delineation of long- and short-range objectives capable of being translated into operationally meaningful activities and subsequent evaluation;

(10) Analysis for
Military
Decisions.

Content Outline (continued)

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- | | |
|---|---|
| <ul style="list-style-type: none">b. recognition of the dynamic nature of goals and ability to sense when new ones have emerged or when a reordering of priorities among existing objectives is imperative;c. utilization of quantitatively oriented tools and procedures in analysis of systems; andd. dedication of a high priority for planning and programming activities in the time schedule of top echelon administrators (8). <p>3. Systems analysis is a useful tool when you know the specific outcome you want to achieve but are not sure what resources, people, and events should be used. It is also useful if you have to determine the costs of activities or programs, although it is not a cost-reporting system in itself.</p> <p>C. <u>Management by Objectives</u></p> <p>1. Management by objectives (MBO) is a process oriented toward the accomplishment of a predetermined objective at some point in the future. The emphasis is upon where the organization is going, what is to be accomplished, how the objectives are to be accomplished, (that is, what are alternative ways of achieving a predetermined objective), what resources and activities are to be generated in the environment in which accomplishment is to occur, and how</p> | <p>(8) <u>Administration of Public Education.</u></p> |
|---|---|

Content Outline (continued)

well the actual performance conforms to the desired level of performance with explicit adherence to pre-specified target dates (3).

Management by objectives is used extensively by business. It is often referred to as management by results and goal management.

2. One characteristic of MBO is that it encourages the integration of many different levels of individuals. They all cooperate to achieve a particular objective that is agreed upon by the organization.
3. MBO is a particularly good method if motivation is a problem. Participants, once they have agreed upon the value of the objective, are usually enthusiastic in helping to achieve the objective.

D. PERT

1. PERT is a diagrammatic planning technique for scheduling complex and numerous events in a way that shows interrelationships and dependencies. PERT attempts to help planners reduce the lag between estimated project completion time and actual completion time. It is used primarily for management project functions: planning, scheduling, controlling, and evaluating events and activities (9).

(3) Management Systems for Vocational and Technical Education, p. 5.

(9) CPM/PERT: A Diagrammatic Scheduling Procedure, p. 13.

Content Outline (continued)

2. The purpose of a PERT system is: to evaluate the progress made in the attainment of project goals; to focus attention on potential and actual problems in projects; to provide management with frequent and accurate status reports; to predict the likelihood of reaching project objectives; and to determine the shortest time in which a project could be completed (4).

(4) Introduction to PERT, p. 2.

E. PPBS

Planning, Programming, Budgeting Systems commanded a lot of attention when it first appeared. Unfortunately, the PPBS concept was quickly distorted by claims and misinformation. As a consequence, many people couldn't decide what PPBS was and what it was supposed to do.*

* See Discussion Question G in Part III.

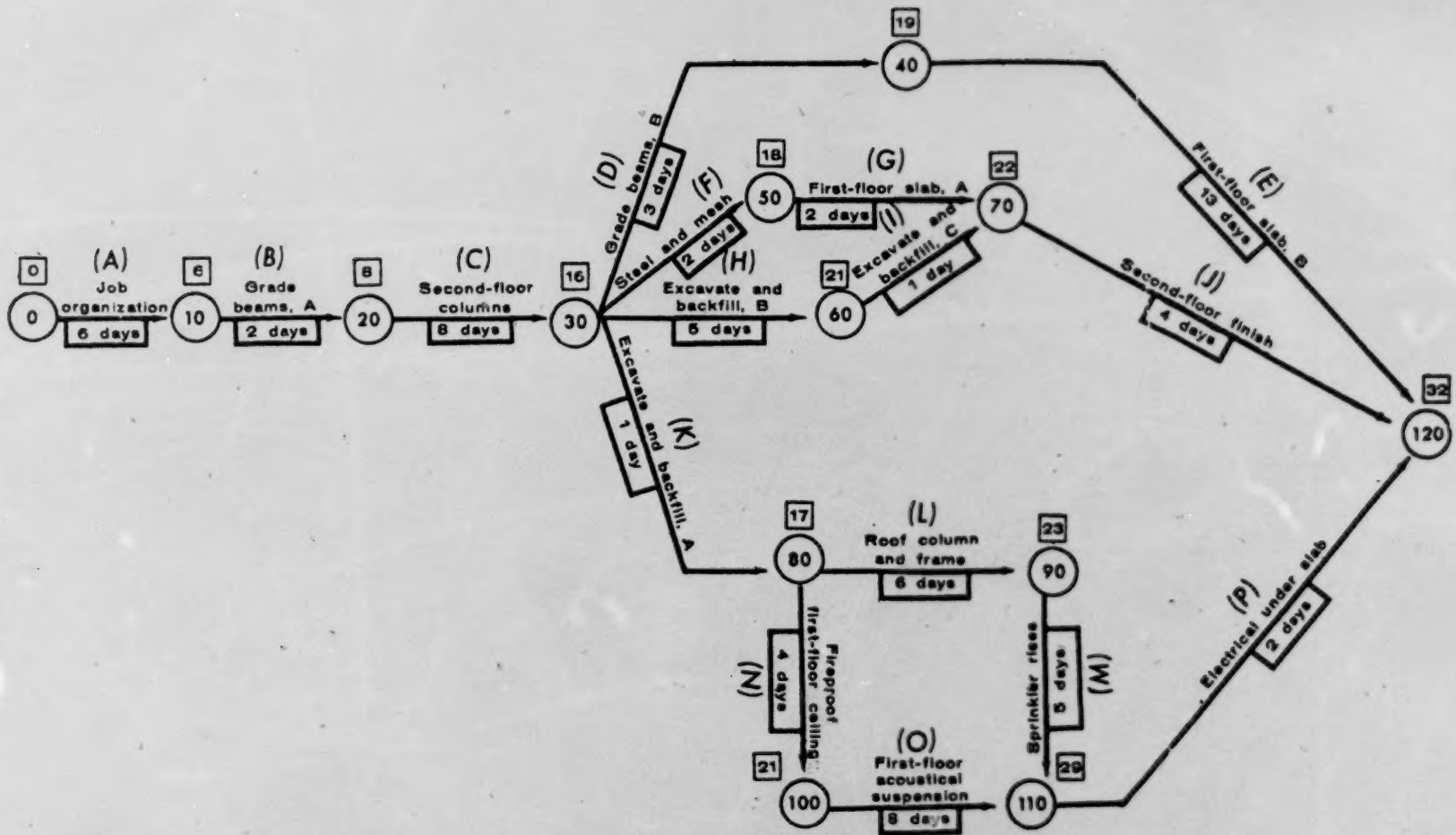
1. History of PPBS

The PPBS concept was developed for government agencies by the RAND Corporation in the 1950s.

The concept is basically that of integrating several familiar planning, budgeting, and evaluation processes into a systematic whole.

The first application of this system was the reorganization of the Department of Defense under Robert McNamara in 1961. This application was so successful that by 1965, President Johnson directed all major federal departments and agencies to implement a PPB system.

An example of a PERT schedule



from Marks, Morton E.; Taylor, H. Lyndon; Schoen, Gary W.; and Susbauer, Jeffrey C. CPM/PERT: A Diagrammatic Scheduling Procedure. Austin, Texas: The University of Texas, 1966.

The circles represent completed events. The lines represent activities, with time for their completion specified. Connecting lines represent interdependencies.

Content Outline (continued)

Since then, PPBS has been used by state and local governments in many areas, including the administration and management of such public services as libraries and educational institutions (3).

(3) Management Systems for Vocational and Technical Education, p. 19.

2. Why Schools Have Accepted PPBS

In the past, the management of public school districts has been divided: the business office has been responsible for accounting and analysis; the instructional division has been responsible for developing objectives and curriculum; and the school board has been responsible for overall district policies. For general operating purposes, these divisions are quite useful. But in budgeting and planning, these divisions have too frequently worked at cross-purposes, or in ignorance of each other, with a resulting great lack of efficiency.

The function of PPBS is to tie these separate elements and their activities into a comprehensive management system for the purposes of:

- a. planning and organizing school curriculum and supportive activities most effectively;
- b. evaluating school activities in terms of student achievement; and
- c. systematically budgeting for each activity, at least partly on the basis of objectives, cost, and effectiveness.

Content Outline (continued)

3. Key Feature of PPBS

The key feature of a PPB system is its emphasis on the organization of all school activities into programs. A program is a category consisting of either a major area of study, such as mathematics or home economics, or a part of the educational support system, such as transportation or food services (3).

When resources are allocated directly to programs, the cost of each program can be easily determined and related to the program's purpose and importance.

And by establishing appropriate performance criteria, a program can be evaluated as to whether it is effectively serving its purpose or whether a new or revised program should be planned.

To summarize, PPBS provides the structure necessary for identifying where money is being spent, and, conversely, for revealing the cost of reaching program objectives and goals. Furthermore, with its emphasis on program analysis and evaluation, it provides a sound basis for decisions regarding curriculum revisions.

(3) Management Systems for Vocational and Technical Education, p. 21.

Content Outline (continued)

4. How PPBS Works

Naturally, PPBS does not operate by itself. An operational PPBS needs the cooperation and involvement of the entire school and district staff.

- a. First, teachers specify learning objectives and plan new programs using evaluation data from past programs.
- b. Administrators organize all program information into a useful district-wide structure, and project the costs of every program and proposal.
- c. The school or district management team formulates a plan encompassing all district programs that can be implemented through the budget; the plan is based in part on the analysis of program objectives, costs, and effectiveness (3).*

(3) Management Systems for Vocational and Technical Education, pp. 25-29.

* See Discussion Question H in Part III.

5. PPBS Documents

A PPB system requires that information be organized into several convenient documents. The number and scope of these documents can vary somewhat depending on the particular needs of the school system. Generally, however, there are four major documents:

- a. Program Structure: The first document is called the program structure. The program structure organizes all school programs into categories and levels based on program purpose and scope. For instance, instructional programs, instructional support, pupil services, general support, and

Content Outline (continued)

community services are usually the first level divisions for all district programs. Goals are developed for all of these categories (3).

(3) Management Systems for Vocational and Technical Education, pp. 29-34.

In the next level, instructional programs, for example, are usually divided into general education, special programs, vocational education, continuing education, and summer school. Appropriate goals are also developed for these categories.

Next, for example, general education is divided into preformal, elementary, secondary, and adult programs, each with its own set of goals.

Elementary, secondary, and adult programs are further divided into curriculum department subjects such as drama, English, and mechanical drawing. At this level, objectives are specified for each department.

And the final level divides each department into specific classes or courses.

A complete program structure provides a framework for reporting to the state board and others information about what district programs are supposed to accomplish.

Content Outline (continued)

But this information about the projected accomplishments of all district activities would be useless without some sort of evaluation criteria. And this is the purpose of the second document.

- b. Program Report: The program report provides feedback to school and district management on the successes and failures of each program. Each report covers an entire ongoing program, and includes:

- (1) the criteria and methods used to evaluate the program;
- (2) any variations between estimated and actual student performance;
- (3) general and specific progress of the program; and
- (4) problem areas and any other pertinent material that may eventually be used to assess the achievement of educational and fiscal objectives.

Usually, districts implementing PPBS appoint an individual to collect and analyze evaluation data at planned, periodic intervals, and to coordinate all district evaluation activities.

- c. Program Description: The third document PPBS uses is called the program description. This summation is a major analysis of each program. It lists program choices or options and their implications (3).

(3) Management Systems for Vocational and Technical Education, pp. 61-64.

Content Outline (continued)

Basically, a program description is a comprehensive statement of program content. It describes:

- (1) the activities to be performed;
- (2) the time period in which they are to be accomplished;
- (3) the resources assigned;
- (4) the objectives the program is designed to achieve;
- (5) the resources assigned;
- (6) the schedule of activities to be performed;
- (7) the criteria that will be used to measure the students' achievement of the objectives; and
- (8) the responsibilities assigned to the teacher or department head.

The fourth and final document is prepared by central district staff.

- d. Multi-Year Program and Financial Plan: The multi-year program and financial plan (MPFP) is a summary of the critical budgeting and planning from all other PPBS documents. It includes the following:

- (1) all major program decisions and their implications for future planning;
- (2) program objectives and evaluation criteria; and
- (3) estimated funding requirements for each program for the first year and four subsequent years.

Content Outline (continued)

The MPFP has several purposes:

- (1) It summarizes program decisions and allows an overall examination of program costs and benefits.
- (2) After approval and possible revision by district board members, the MPFP becomes the basis for program implementation.
- (3) It shows where the various school programs are going, and how they are going to get there.
- (4) It serves as the basis for future budget documents, because it enables a comparison between cost and effectiveness actualized for any given program.
- (5) It is an excellent vehicle for informing the community and state legislature of the uses of tax money, and what is to be accomplished with that money.

6. Summary

Obviously, a PPB system cannot answer every question one may ask. PPBS is an information gathering device that the administrator uses for more effective decision making. PPBS does not make decisions; it does, however, provide facts, comparisons, etc. upon which to make decisions. It does not address itself to the problem of work efficiency, personnel selection, or administrative procedures.

Content Outline (continued)

There are many advantages to the PPB system:

- a. PPBS encourages a conscious process of choice in planning, supported by a factual base.
- b. Implicit in the system is a continuing review and analysis of all school programs and activities.
- c. The system makes long-range educational planning routine. Multi-year analysis provides a comprehensive projection of program costs.
- d. It makes more and better information available.
- e. It can significantly aid in determining priorities for scarce resources.
- f. It can link program evaluation to future planning.
- g. PPBS promotes community-school relations by effectively informing the public of program decisions, accomplishments, and priorities.*

* See Discussion
Question I in
Part III.

F. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Read the recommended text Planning and Management Systems for State Programs of Vocational and Technical Education. This pamphlet will give you a general background on the various management systems. Then complete the following questions for each of the four management systems: systems analysis, management by objectives, PERT, and PPBS.
 - a. What are the characteristics of this system?
 - b. When should this system be used?

Goal 10.3

Content Outline	Activities-Resources
Goal 10.3: Describe the Basic Characteristics of the State Plan for Vocational Education in the State in Which You Reside. A. <u>Overview of State Plans</u> Each state is required to publish a state plan for vocational education. You are to acquire the state plan for your state, study it, and answer the questions in this Study Guide. Because each state plan varies slightly, this discussion will point out the general categories of state plans rather than describe any state plan in detail. 1. The goal of state plans is to predict vocational education needs and suggest methods for fully meeting the requirements of the state's economy and the welfare of the residents. To accomplish these ends, the plans usually include: a. a review of the present status of vocational education; b. a projection of future needs for and in vocational education; c. an evaluation of the manner in which the existing program is meeting current needs; and d. recommendations for future development of vocational education (1).	(1) <u>California State Plan for Vocational Education.</u>

Content Outline (continued)

The purpose of the state plan is to provide the policies, procedures, and other information necessary for the effective planning, administration, and operation of the federally aided vocational education programs throughout the state in compliance with existing state and federal statutes and regulations. A state plan includes the administrative provisions that will apply in the expenditure and use of federal funds made available under the provisions of the Vocational Education Amendments of 1968 (P.L. 90-576). State plans are prepared in accordance with instructions from the U.S. Commissioner of Education (1).

2. As you read the state plan for your state, refer to the questions in this guide so that you will know the information you should be looking for. State plans are legal documents and, as such, they can be a little difficult to read.

(1) California
State Plan for
Vocational
Education.

B. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Read the state plan for vocational education for the state in which you reside. As you read it, answer the following questions.
 - a. Who has custody of federal funds provided for vocational education programs?
 - b. How frequently are the accounts of the state board audited? (Check more than one if appropriate.)
 - _____ a. annually
 - _____ b. semi-annually
 - _____ c. every two years
 - _____ d. as often as deemed necessary by the Director of Finance
 - c. How frequently are the fiscal records of local agencies audited?
 - _____ a. semi-annually
 - _____ b. annually
 - _____ c. every two years
 - d. Describe the percentage requirements for federal funds made available to your state for the following groups.
 - a. disadvantaged persons
 - b. handicapped persons
 - c. postsecondary persons
 - e. List the characteristics used to identify "disadvantaged" persons.
 - f. List the characteristics used to identify "handicapped" persons.
 - g. List the two main priorities your state uses to allocate funds to local agencies
 - h. List the instructional areas of vocational education recognized by your state.

Goal 10.4

Content Outline	Activities-Resources
Goal 10.4: Prepare the Components of a Proposal Requesting Funding of a Program or Project in Vocational Education.	
A. <u>Rationale for Studying Proposal Writing</u> Applying for a grant or contract is often viewed as a formidable task. Numerous forms, red tape, applications, and long waiting periods often discourage people from requesting funding for worthwhile projects. Nevertheless, the competition for available funds increases each year. The number of grants, granting agencies, and actual funds, however, also increases each year. More and more federal agencies, private foundations, industries, professional organizations, and public and private agencies offer funds for worthwhile projects (6). So, it becomes the responsibility of vocational curriculum specialists to learn how to apply successfully for these funds.	(6) <u>Developing Skills in Proposal Writing.</u>
B. <u>How to Write Proposals</u> There is no special mystique about proposal writing. Anyone with a good, well-thought-out idea and average writing skills can successfully write a proposal.	

Content Outline (continued)

The preparation of a proposal follows some well-established steps, beginning with a discussion of the project idea.

1. Selecting an Idea for a Proposal: The first step is to decide upon the topic or program that is most likely to be accepted. For this, you may choose to answer a request for a proposal (RFP) rather than submit an unsolicited one. An unsolicited proposal has less chance of being accepted because you have no assurance that the agency is interested in the topic.
2. Developing the idea: The next step is to describe the idea to show its importance and value to the funding agency, the target population, or society in general. To do this, you must demonstrate that there is a need and that your project will answer that need.
3. Selecting the Funding Source: If you are not responding to a request for proposal, you will have to locate the most appropriate funding source. To do this, find out from what sources funds have come for projects similar to yours. Also, review some of the publications that specialize in reporting grants. Such publications include:
Catalog of Federal Domestic Assistance. Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Content Outline (continued)

Catalog of HEW Assistance Providing Financial Support and Service to States, Communities, Organizations, and Individuals (1969). Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

College and University Reporter. Commerce Clearing House, Inc., 4025 West Peterson Ave., Chicago, Illinois 60646.

Federal Aid Service. Subscription Department, Croft Education Services, Inc., 100 Garfield, New London, Conn. 06320.

Federal Aids to Local Government. Federal Aid Service, National League of Cities, U.S. Conference of Mayors, 1612 K St. N.W., Washington, D.C. 20006.

Manpower Information Service. Bureau of National Affairs, Inc., 1231 25th. St. N.W., Washington, D.C. 20037.

Urban Affairs Reports. Commerce Clearing House, Inc., 4025 West Peterson Ave., Chicago, Illinois 60646 (6).

(6) Developing Skills in Proposal Writing.

You should contact several funding agencies to learn which ones might be interested in your project. Hopefully one or two agencies will encourage you to submit a proposal for their review. Then, you are ready for the next step.

Content Outline (continued)

4. Writing the Proposal: A well-written proposal takes time and thought. Do not expect to dash off a proposal in an evening. You should write a draft, give it to several people to review, rewrite the proposal, give it to different people to review, and then write the final copy. The reactions of those who review the proposal are very important in all stages of its development.

Although many agencies will tell you what information they want included in the proposal, there are standard components that should be included in all proposals. These include the following:

- a. title page,
 - b. abstract,
 - c. statement of need,
 - d. objectives,
 - e. procedures to be followed,
 - f. evaluation to be conducted,
 - g. dissemination procedure,
 - h. required personnel and facilities, and
 - i. required budget (6).
5. Studying the Agency Notification: After the agency has read your proposal, you will receive a notice regarding their decision to provide funding. Regardless of the outcome, you should carefully study the reasons for their decision. In that way, your next proposal has an even better chance of being successful.*

(6) Developing Skills in Proposal Writing.

* See Classroom Activity 2 in Part III.

C. Study Activities

Based on your reading of the content outline and any additional references as suggested, complete the following activities.

1. Read Part I, and Chapters 4, 5, and 6 of Developing Skills in Proposal Writing by Mary Hall. Then answer the following questions.
 - a. List and describe the suggested sections of a proposal abstract.
 - b. Think of a project that might be the subject of a proposal, or one that has recently been funded. Write a statement of need for the project as though it were part of a proposal.
2. Read Chapters 7 and 8 in Developing Skills in Proposal Writing. Then answer the following questions.
 - a. Describe the following terms as they are used in Developing Skills in Proposal Writing:
 - a. Operational products
 - b. Instructional processes
 - c. Management processes
 - b. Using the same project that you selected in the exercise for Activity 1, write objectives for each of the following categories as described in Developing Skills in Proposal Writing:
 - a. Operational objectives
 - b. Instructional objectives
 - c. Management objectives
 - c. Briefly describe the content of each of the following components of a proposal as described in Developing Skills in Proposal Writing:
 - a. Design
 - b. Participant selection
 - c. Participant role
 - d. Timing
 - e. Administration
 - f. Products/outcomes

- d. Using the same project that you used for Item b of this exercise, briefly list the topics you would include in the following areas of a proposal:
 - a. Design
 - b. Participant selection
 - c. Participant role
 - d. Timing
 - e. Administration
 - f. Products/outcomes
3. Read Chapters 9 and 10 in Developing Skills in Proposal Writing. Then answer the following questions.
 - a. Describe the purpose and procedures of the two evaluation phases.
 - a. Context phase
 - b. Program phase
 - b. Using the same project that you used in Activity 2, complete Attachment 1 on pages 133 and 134 in Developing Skills in Proposal Writing. You may prefer to copy the forms, and write on your copies rather than on the originals in the book.
 - c. List at least seven of the ten means that can be used for diffusion, as given in Developing Skills in Proposal Writing.
4. Read Chapters 11, 12, and 13 in Developing Proposal Writing Skills. Then answer the following questions.
 - a. List the information that is usually included in the section of the proposal entitled "Personnel and Facilities."
 - b. Briefly describe the purpose and procedures of the three steps discussed in "Developing the Budget" section of a proposal.
Step One: Determine the Ground Rules.
Step Two: Identify Total Costs of Program.
Step Three: Prepare the Final Budget Document.

- c. Why is it important to request copies of the reviewers' comments after a proposal has been accepted or rejected?

Wrapup Activity

NOTE: To meet the basic requirements of this module, select one of the following activities and complete it as directed. If you wish to earn additional credit beyond the basic requirements, you may choose a second activity to complete. Consult with your instructor first if you wish additional credit.

1. Select a subject that you think would be a good project for you, your school, your school district, or an organization you could work with. Develop a proposal requesting funding for one year with renewal opportunities. Include all the phases and steps mentioned in Developing Skills in Proposal Writing by Mary Hall.

To complete this activity, you will need to select or request the necessary forms from the appropriate agencies. Your project may suggest that state agencies be used; however, do not overlook possible private, nonprofit companies and federal agencies. Your instructor will help you identify the appropriate agency for your particular project and will help you acquire the necessary forms.

The purpose of this activity is to give you an opportunity to discover some of the difficulties of proposal writing. You are to locate all necessary costs, develop a list of resumes, and so on. Because this could be an enormous task, be sure to select a topic that is not too large or involved. Keep the number of individuals who are to take part in the project as small as possible.

In addition to the forms that must be completed, be sure to do the following:

- a. Prepare a statement of need.
- b. Prepare objectives that describe the outcomes of the program.

- c. Prepare a description of the procedures to be followed.
 - d. Prepare a plan for evaluating the success of the program.
 - e. Prepare a plan for the diffusion of the program.
 - f. Prepare a description of the required personnel and facilities.
 - g. Describe the budget requirements.
2. Select one of the following management systems: systems analysis, management by objectives, or PERT. Research the system until you have located a resource for each of the following categories:
- a. a description of the system,
 - b. an example of the application of the system, and
 - c. an evaluation of the system.

Write a paper that includes the following topics:

- a. a description of the basic characteristics;
- b. a description of the necessary components of the system;
- c. the advantages and disadvantages of the system;
- d. the appropriateness of the system for vocational education;
- e. the degree to which it would be difficult (or easy) to implement the system at a state, district, and local level;
- f. your suggestions for adapting, revising, and implementing the system;
- g. a bibliography of your research on the system.

An excellent starting point for your research is the bibliography in the publication Management Systems for Vocational and Technical Education, Information Series No. 51, VT 013 928 (Columbus, Ohio: ERIC Clearinghouse on Vocational and Technical Education, 1971).

Part III:

Group and Classroom Activities

PART III

GROUP AND CLASSROOM ACTIVITIES

Classroom Activities

NOTE: The following activities are designed for use in the classroom to stimulate discussion on specific topics covered in this module. The activities are designed to be used following student self-study; however, depending on the background and abilities of students, these activities may not require previous study. All classroom activities are keyed to the content outline to indicate an appropriate point at which they might be presented.

1. "Accountability could lead to preoccupation with educational goals that are observable and measurable. The ability to choose wisely, make critical judgments, and think independently cannot always be measured but is no less important than the ability to perform technical skills. To assume responsibility for immeasurable learning entails a certain amount of risk, but it also implies an open view of education, whereas accountability, though safer, lends itself to conformity and a mechanistic approach."

Divide the class into two groups and conduct a debate on the points brought up by this statement. Give each group a few minutes to solidify their points of view and have each appoint a spokesman. This spokesman will be responsible for making the group's initial presentation. An orderly debate by the two teams should follow.

2. The purpose of this activity is to develop a list of private and public agencies, industries, associations, and state and federal agencies that are possible sources of grants.

List the following areas of vocational education on the blackboard:

- a. agricultural education
- b. distributive education
- c. office education
- d. home economics education
- e. health occupations education
- f. technical education
- g. trades and industrial education
- h. public service education
- i. criminal justice education

Ask students to select the area that interests them most. Then divide the class into groups--each group to represent one of the areas listed.

Assign each group the task of developing a list of potential funding agencies. The list should have four headings: federal agencies, state agencies, public and private foundations and agencies, and industry. Encourage students to list as many potential sponsors under each heading as possible.

Discussion Questions

- A. Accountability often loses its appeal because of the testing requirement. Why do you think this is the case?

(If testing methods are not accurate, it is difficult to place responsibility for the success or failure of students. Also, most tests do not accurately assess student interest or emotional growth and maturity--an important part of the educational process.)

- B. If a program is not effective in teaching a skill and does not result in students achieving the objectives, but it does increase student interest greatly, can it be justified?

(Probably, if the expense and time spent are not too great. However, the objectives should be examined carefully to see if they are appropriate for the class, and the teaching methods should definitely be revised so that they are more effective.)

- C. Why has job placement traditionally been considered a criterion for evaluating vocational programs when it is not so considered by educators in general?

(Since vocational education programs are designed to fill an employment need, vocational education programs have considered placement a part of the program. General education does not teach students skills that are applicable to a specific job, so placement is not part of the program.)

- D. Assume that you have determined the cost of your program, as has John Doe with a similar program in a neighboring high school. Assume also that the costs for both programs are equal. If a follow-up study of the graduates of both programs shows that you placed twice as many graduates in jobs, which program is most cost effective?

(The program that places more graduates is more cost effective even though the initial costs were equal.)

- E. What other criteria might be used to evaluate a program? (Other criteria might include: time spent, training, intrinsic value of content, etc.)

- F. Why is it important to consider whether or not students were overtrained?

(Instruction that trains students to perform skills they will not have an opportunity to use on the job wastes time and money.)

- G. Are you familiar with PPBS? If so, how have you been involved with it? What role might you see yourself playing in PPBS in the future?

- H. Should the community be involved in the PPBS process? At what point?

(Yes. The community can provide information regarding interests and needs. Parents are very influential in their children's choice of educational courses, so learning parental preferences helps the schools provide relevant objectives and courses. Also, local business can describe their manpower needs, which also helps the school districts select relevant objectives.)

- I. What problems do you see in the PPB system?

(PPBS requires a different budgeting system. School budgets have been traditionally line item budgets, i.e., instruction, administration, equipment, etc. Under PPBS, budgeting must be by program; for instance business education, secretarial practices, etc. Many state accounting systems are not organized to accommodate PPBS.)

What advantages do you see in the PPB system?

(Once PPBS is established, better information and cost data is available.)

Part IV:

Student Self-Check

PART IV

STUDENT SELF-CHECK

GOAL 10.1

1. Describe the concept of accountability in education. (10.11)
2. Describe the role of the vocational curriculum specialist in an accountability system. (10.12)
3. List the four necessary components of an accountability system. (10.13)

GOAL 10.2

4. Briefly describe the following fiscal planning and management systems. Be sure to mention the basic characteristics of each plan, and the advantages of using it. (10.21)
 - a. Systems analysis
 - b. Management by objectives
 - c. PERT
 - d. PPBS

GOAL 10.3

5. How are federal funds maintained and audited by your state? (10.31)
6. Describe the two main state criteria for allocating federal funds to state and local vocational education programs. (10.32)

7. What percentage of federal funds is allocated to each of the following programs? (10.33)

_____ % to disadvantaged

_____ % to handicapped

_____ % to postsecondary persons

8. List the instructional areas of vocational education recognized by your state. (10.34)

GOAL 10.4

9. The State Vocational Education Department has announced that funds are available for new vocational programs. The funds will be awarded according to the value of a program as demonstrated in the proposal that is submitted for it. Select a vocational subject and complete the following proposal components. Then, using the text Developing Skills in Proposal Writing by Mary Hall, complete the following in outline form. (10.41 - 10.47)

- a. Prepare a statement of need.
- b. Prepare objectives that describe the outcomes of the program.
- c. Prepare a description of the topics to be covered.
- d. Describe how to prepare a plan for the diffusion of the program.
- e. Prepare a description of the required personnel and facilities.
- f. Describe how to prepare a plan for evaluating the success of the program.
- g. Describe the three steps for preparing a description of the required budget.

NOTE: You do not have enough information to complete all of the components of a proposal. Whenever you do not have the necessary information, feel free to fabricate facts and information. The purpose of this exercise is to assess your skill in the process and form of proposal writing, not your accuracy with facts and figures.

Part V:

Appendices

PART V

APPENDICES

Appendix A:

Possible Study Activity Responses

GOAL 10.1

- 1a. Accountability is a systematic procedure for determining student learning needs, the effectiveness of the educational process to meet these needs, and the efficiency of the educational process to meet these needs.
- b.
 - a. A teacher is accountable to the administrators, who expect certain activities and efforts in the classroom, and to the students and the parents, who also expect qualified teaching behavior and efforts in the classroom.
 - b. The administration is accountable to the community and to the teachers to provide an environment in which instruction can be conducted. The administration is also responsible for maintaining the necessary records and meeting all state requirements for funding, safety, and upkeep.
 - c. The student is accountable for the degree to which he takes advantage of the educational setting and applies himself to the learning process.
 - d. (The particular response to this question depends upon the type of accountability system that you have chosen to implement in the classroom.)
- 2a. The four necessary components of an accountability system are:
 - a. objectives,
 - b. criterion-referenced tests,
 - c. monitoring system to gather data on the success and failure of students, and
 - d. accurate cost data.
- b. Behavioral objectives and criterion-referenced tests are essential for an accountability system because without them, no one knows the aim of education and, perhaps even worse, no one knows when or if the education process has been successful.

GOAL 10.2

1. Systems Analysis

- a. Systems analysis is a planning system that has established objectives. It analyzes costs, effectiveness, and risks associated with achieving the objectives.
- b. Systems analysis is particularly useful when one must analyze a variety of interrelated events, people, and materials.

Management by Objectives

- a. Management by objectives (MBO) is a planning system that encourages the active commitment and participation of all levels of an organization. Objectives are agreed upon by all members of the organization, and each one is responsible for achieving his part in the project.
- b. This management system is particularly useful when motivation is a problem.

PERT

- a. PERT is a diagrammatic scheduling system that demonstrates the interdependencies of events and activities. It is particularly useful for scheduling complex programs.
- b. PERT is used to plan a schedule of events during the initial stages of program development. It is also used to follow the progress of a program since delays in any particular activity can signal related delays in the schedule.

PPBS

- a. PPBS is a system that organizes all school activities by subject area programs. The purpose of PPBS is to separate costs into specific courses or programs so that one can know with certainty what each program costs.
- b. PPBS should be used when a detailed accounting of expenses is required.

GOAL 10.3

1. (The specific responses to this activity will vary according to the characteristics of your particular state plan. However, since the California State Plan for Vocational Education is representative of many states' plans, answers given here are based on its provisions.)
 - a. The State Treasurer has custody of federal funds.
 - b. c, d
 - c. b
 - d.
 - a. Disadvantaged persons receive at least 15%.
 - b. Handicapped persons receive at least 10%.
 - c. Postsecondary persons receive at least 15%.
 - e.
 - a. academically disadvantaged
 - b. culturally disadvantaged
 - c. economically disadvantaged
 - d. socially disadvantaged
 - f.
 - a. mentally retarded
 - b. learning disability handicapped
 - c. seriously emotionally disturbed
 - d. crippled
 - e. visually handicapped
 - f. deaf and blind
 - g. speech impaired
 - h. multihandicapped
 - i. chronically ill
 - g.
 - a. that programs be physically located in economically depressed areas
 - b. projects be for adults on both a full-time and part-time basis
 - h.
 - a. agricultural education
 - b. distributive education
 - c. office education
 - d. home economics education
 - e. health occupations education
 - f. technical education
 - g. trades and industrial education
 - h. public service education
 - i. criminal justice education

GOAL 10.4

- 1a.
 - a. Statement of the problem: Describe why the problem is significant, why there is a need for a solution to the problem, and what is the value of the effort to be made in the project.
 - b. Objectives: State the objectives of the project concisely, with only the major outputs included.
 - c. Procedures: Describe the procedures to be followed in general terms.
 - d. Evaluation: Write a short description of the approach that will be used.
 - e. Dissemination: Describe how the project will have an impact after it is completed.
- b. (There is no right or wrong answer to this question. You should, however, show the following in your statement of need:
 - a. the importance of the need in the local situation and in relation to regional or national concerns;
 - b. the significance of the approach used in the proposed project;
 - c. the relationship of the need and approach to the interests of the funding agency.)
- 2a.
 - a. Operational products: the visible outcomes of the project--such as training manuals or curriculum guides
 - b. Instructional processes: the processes that take place to produce the operational products
 - c. Management processes: the means by which management of the overall project is carried out
- b. (There is no right or wrong answer to this question. You should have written objectives for the three categories: operational products, instructional processes, and management processes. Your objectives should be concise statements of outcomes with a behavioral verb, conditions, and standards.)
- c.
 - a. Design: This section describes the applicant's design or approach in general terms and in separate, specific categories.
 - b. Participant selection: This section of the proposal must identify the project participants and describe how the participants will be selected.
 - c. Participant role: This section of the proposal describes how the participants will perform a key role in the program.
 - d. Timing: This is a realistic time schedule for the project. Tables, graphs, or charts may be used.
 - e. Administration: This section of the proposal includes information on how the project will be administered, who the key project staff are, their roles, how the administration of the project relates to other functions of the agency, and the role of any advisory boards or community councils.
 - f. Products/outcomes: This section of the proposal describes the anticipated results of the project in summary format. It once more states the potential impact of the proposed project.

- d. (There is no right or wrong answer to this question. For sample responses to this activity, refer to the sample proposals in the text, Developing Skills in Proposal Writing by Mary Hall.)
- 3a. a. Context phase: The purpose of the context phase of evaluation is to identify constraints that may affect the program. This phase attempts to answer questions such as: What are the problems at which this program is directed? What are the priorities? What are the social and economic characteristics of the population being served? How valid are the strategies and procedural designs selected?
- b. Program phase: The program phase of evaluation is the basic analysis of the short-term and long-term success of the program. The specific steps usually include:
- (1) Review of objectives,
 - (2) Categorization of objectives,
 - (3) Selection of measurement instruments,
 - (4) Analysis of data,
 - (5) Managing the evaluation process, and
 - (6) Reporting the evaluation results.
- b. (There is no right or wrong answer to this activity. Your answer should follow the descriptions provided in the text.)
- c. a. project newsletter
b. conferences or seminars
c. site visits
d. periodic project reports
e. final reports and materials circulated
f. commercial or professional media like journals or newsletters for articles and reports
g. papers delivered at national conferences
h. audiovisual material presented to groups
i. visits by project staff to other agencies
j. special briefings for Congressmen or other state officials
- 4a. a. identification of necessary project staff positions
b. job descriptions for key personnel
c. qualifications and selection process for key personnel
d. vitae or resumes for key staff already selected
e. summary of the use of consultants
f. information about any innovative approach in the use or evaluation of the staff
g. description of facilities and major equipment needed, outlining what the agency already has and what it is requesting funds to purchase, rent, or renovate
h. justification of the facilities and equipment
i. information on any innovative approach being used with the facilities or equipment

- b. Step One: Determine the Ground Rules. Learn the regulations set by the agency and the funding source. This might include whether or not to overestimate financial needs and the approximate range of previous awards.

Step Two: Identify Total Costs of Program. At this point, exact projections of all program costs should be made. The budget should be broken down into the specific categories that make up the phases of the project.

Step Three: Prepare the Final Budget Document. Once the estimates for the project costs have been identified, the figures should be transferred to the budget form required by the funding agency.

- c. It is important to request copies of the reviewers' comments after the proposal has been accepted or rejected because the comments can provide valuable insight into how funding decisions are made. Why was the proposal rejected? Was the price too high? The statement of need unconvincing? The evaluation plan inadequate? And if the proposal is accepted, what were the strong points in the proposal that should be repeated in future proposals? Any comments you can receive from the funding source will help you in the development of future proposals.

Appendix B:

Possible Self-Check Responses

GOAL 10.1

1. Describe the concept of accountability in education. (10.11)

Accountability is a systematic procedure for determining student learning needs, the effectiveness of the educational process to meet these needs, and the efficiency of the educational process to meet these needs.

2. Describe the role of the vocational curriculum specialist in an accountability system. (10.12)

The vocational curriculum specialist is the link between the educational institution and business/industry. He must ensure that learning objectives describe skills correctly (as verified by business and industry representatives) and that graduates of the vocational programs are prepared for the job performance requirements of business/industry.

3. List the four necessary components of an accountability system. (10.13)
 - a. objectives
 - b. criterion-referenced tests
 - c. monitoring data
 - d. cost data

GOAL 10.2

4. Briefly describe the following fiscal planning and management systems. Be sure to mention the basic characteristics of each plan, and the advantages of using it. (10.21)
 - a. Systems analysis: A planning system that already has established objectives. It analyzes the costs, effectiveness, and risks associated with achieving the objectives. Systems analysis is particularly useful when one must analyze a variety of interrelated events, people, and materials.
 - b. Management by Objectives: A planning system that encourages the active commitment and participation of all levels of an organization. Objectives are agreed upon by all members of the organization, and each one is responsible for achieving his part in the project. It is particularly useful when motivation is a problem.
 - c. PERT: A diagrammatic scheduling system that demonstrates the interdependencies of events and activities. It is particularly useful for scheduling complex programs.
 - d. PPBS: A system that organizes all school activities by subject area programs. The purpose of PPBS is to separate costs into specific courses or programs so that one can know with certainty the cost of different programs. PPBS makes more information available so that priorities can be determined for scarce resources.

GOAL 10.3

5. How are federal funds maintained and audited by your state? (10.31)

The State Treasurer has custody of federal funds. Funds are audited every two years or as often as deemed necessary by the Director of Finance.

6. Describe the two main state criteria for allocating federal funds to state and local vocational education programs. (10.32)

- a. that programs be located in economically depressed areas
- b. that programs be for adults on both a full-time and part-time basis

7. What percentage of federal funds is allocated to each of the following programs? (10.33)

15 % to disadvantaged

10 % to handicapped

10 % to postsecondary persons

8. List the instructional areas of vocational education recognized by your state. (10.34)

- a. agricultural education
- b. distributive education
- c. office education
- d. home economics education
- e. health occupations education
- f. technical education
- g. trades and industrial education
- h. public service education
- i. criminal justice education

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GOAL 10.4

9. The State Vocational Education Department has announced that funds are available for new vocational programs. The funds will be awarded according to the value of a program as demonstrated in the proposal that is submitted for it. Select a vocational subject you know enough about to discuss informally. Then, using the text Developing Skills in Proposal Writing by Mary Hall, complete the following in outline form.(10.41-10.47)
- Prepare a statement of need.
 - Prepare objectives that describe the outcomes of the program.
 - Prepare a description of the topics to be covered.
 - Describe how to prepare a plan for the diffusion of the program.
 - Prepare a description of the required personnel and facilities.
 - Describe how to prepare a plan for evaluating the success of the program.
 - Describe the three steps for preparing a description of the required budget.

NOTE: You do not have enough information to complete all of the components of a proposal. Whenever you do not have the necessary information, feel free to fabricate facts and information. The purpose of this exercise is to assess your skill in the process and form of proposal writing, not your accuracy with facts and figures.

(There are no correct or incorrect answers for this question. Analyze the proposal components using the text Developing Skills in Proposal Writing by Mary Hall as a reference.)